

# Advanced Health Monitoring of Computer Clusters

Presenter: Caleb Morse

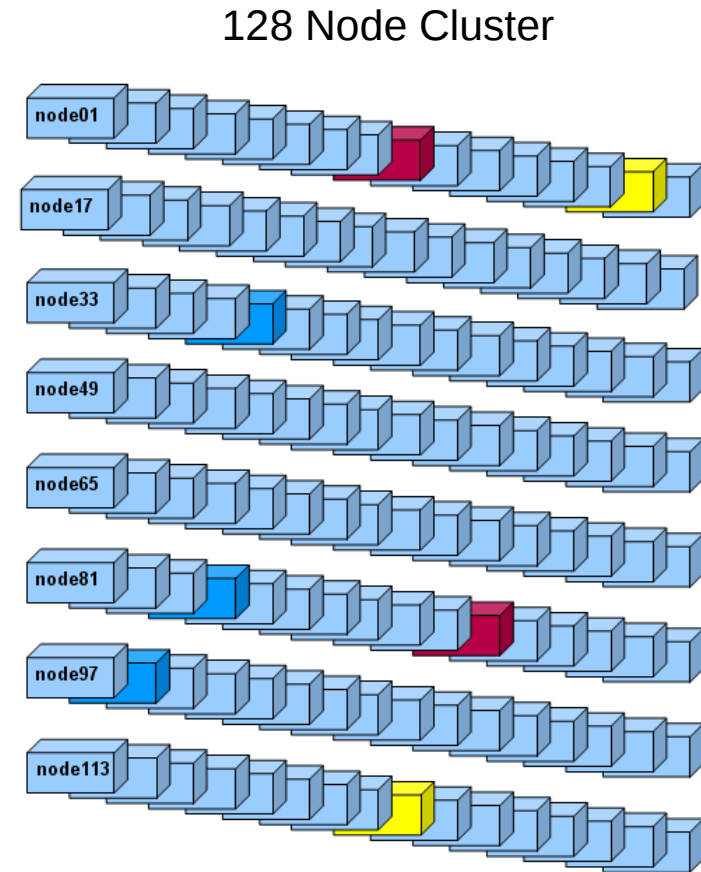
Team: Dylan Merrigan, Sherry Salas

Mentors: Susan Coulter, Andree Jacobson, Kevin Tegtmeier  
LANL ISTI/IAS Cluster/Network Management Summer Institute

August 2, 2007

# Problem

- As a cluster grows in size it becomes much more difficult to monitor
- Mean time to failure increases dramatically with a large cluster



# Solution

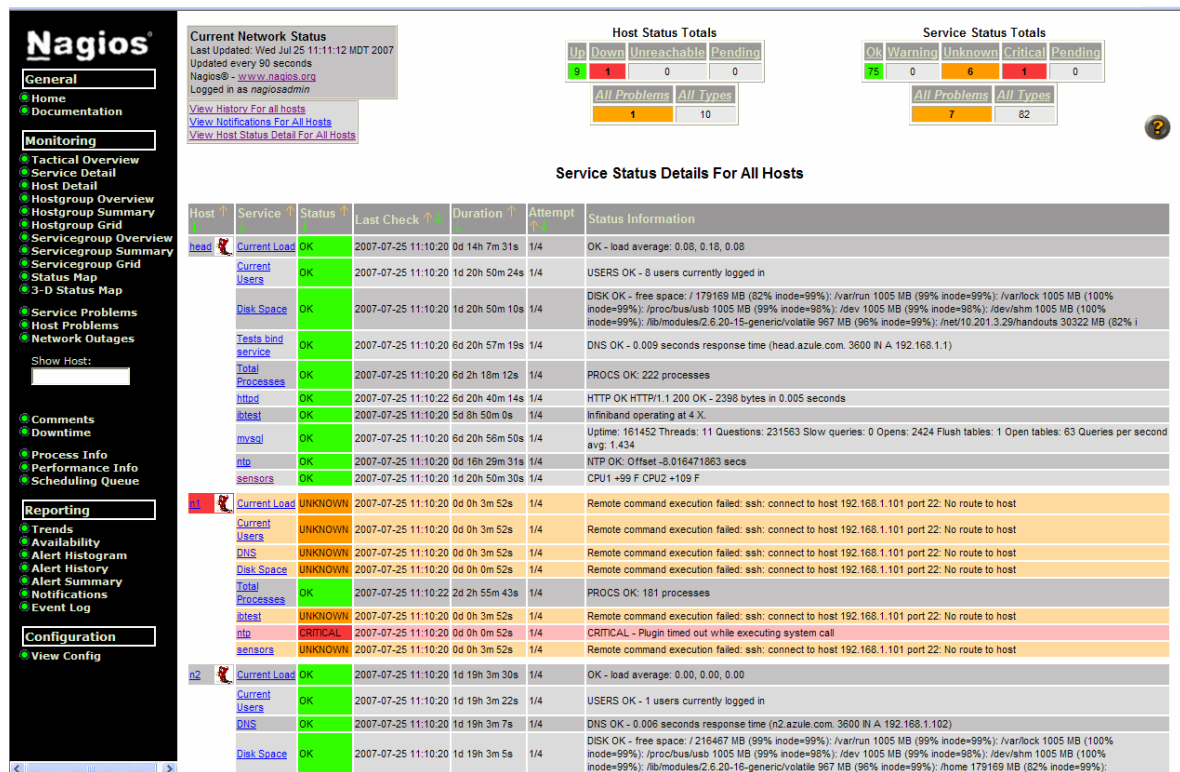
- Identify system faults
- Recognize performance degradation
- Prompt notifications
- Low overhead on compute nodes
- Affordable



# Nagios

- Service checks
- Distributed monitoring and failover
- Custom plug-ins
- Multiple alert states
- Intelligently schedules service checks

# Nagios Gui



# Nagios Disadvantages

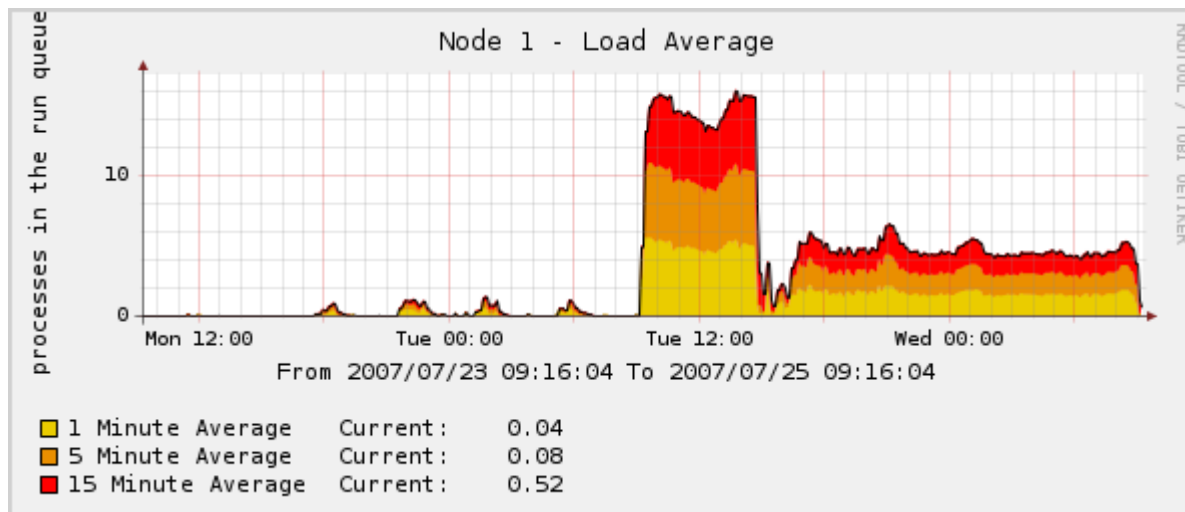


- Configuration
- Documentation
- High overhead
- Scalability

# Verify Nagios

- Generate performance degradation
- Independent testing scripts
- Cacti graphs and Nagios notifications

Cacti Load Average Graph



# Conclusion

- Scalability
- Robustness
- Extensibility
- Manageability
- Portability
- Overhead